

Application No. 10/709,723
Amendment dated December 8, 2005
Reply to Office Action of September 9, 2005

Docket No.: 22171-00016-US1

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A probe device for electrical testing an integrated circuit device, the probe device comprising:

an insulative body including at least one opening;

~~at least one~~ two supporters positioned substantially in parallel with each other inside the at least one opening of the insulative body, wherein the supporter comprises a helical spring with a spiral coil extending substantially in a same plane;

a probe positioned substantially at a center of the supporter; wherein the probe is arranged to electrically connect to a pad of the integrated circuit device during testing; and

a conductive wire positioned in the insulative body and electrically connected to the supporter.

Claims 2-11: (Canceled).

12. (Currently Amended) A probe card for electrical testing an integrated circuit device, the probe card comprising:

a circuit board having at least one test-connecting site;

a probe head having a plurality of probe devices arranged to electrically connect to pads of the integrated circuit device when testing, wherein each of the probe devices comprises:

an insulative body including at least one opening;

~~at least one~~ two supporters positioned substantially in parallel with each other inside the at least one opening of the insulative body, wherein the supporter comprises a helical spring with a spiral coil extending substantially in a same plane;

a probe positioned substantially at a center of the supporter;

a conductive wire positioned in the insulative body and electrically connected to the supporter; and

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an interface board, comprising:

at least one first signal-connecting site positioned on an upper surface of the interface board for electrically connecting the test-connecting site of the circuit board; and

at least one second signal-connecting site positioned on a bottom surface of the interface board for electrically connecting the conductive wire of the probe head.

Claims 13-24: (Canceled).

25. (Currently Amended) A probe card for electrical testing an integrated circuit device, the probe card comprising:

a circuit board, comprising:

a plurality of test-connecting sites; and

a plurality of conductive paths for connecting the test-connecting sites to the bottom surface of the circuit board; and

a probe head comprising a plurality of probe devices, wherein each of the plurality of probe devices comprises:

an insulative body including at least one opening;

~~at least one~~ two supporters positioned substantially in parallel with each other inside the at least one opening of the insulative body, wherein the supporter comprises a helical spring having a spiral coil extending substantially in a same plane;

a probe positioned substantially at a center of the supporter; and

a conductive wire positioned in the insulative body and electrically connected to the supporter and an associated conductive path of the circuit board.

Claims 26-37: (Canceled).

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38. (Previously Presented) The probe device of Claim 1, wherein the probe and the supporter each comprise a material selected from the group consisting of copper, nickel, cobalt, tin, boron, phosphorous, chromium, tungsten, molybdenum, bismuth, indium, cesium, antimony, gold, silver, rhodium, palladium, platinum, ruthenium and their alloys.

Claims 39-46: (Canceled).

47. (Previously presented) The probe device of Claim 1, wherein the at least one opening is hexagonal.

48. (Previously presented) The probe card of Claim 12, wherein the probe and the supporter each comprises a material selected from the group consisting of copper, nickel, cobalt, tin, boron, phosphorous, chromium, tungsten, molybdenum, bismuth, indium, cesium, antimony, gold, silver, rhodium, palladium, platinum, ruthenium and their alloys.

Claims 49-51: (Canceled).